## 10594396 CLSTI TLES, t xt

Titles of most frequently occurring classifications of patents returned from a search of 10594396 on Oct 13, 2009

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(7 OR, 2 XR)
  9 704/207
           Class 704
                       DATA PROCESSING: SPEECH SLONAL PROCESSING. LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION 704/200 . SPEECH SIGNAL PROCESSING
           704/201
                          .. For storage or transmission
           704/205
                          ...Frequency
....Specialized information
           704/206
                          .....Pitch
           704/207
           Class 704 DAT XR)
  6 704/219
                          DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SIGNAL PROCESSING
           704/201
                          .. For storage or transmission
           704/219
                          ... Li near prediction
  5 704/208
           208 (1 OR, 4 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
                        . SPEECH SI GNAL PROCESSI NG
           704/200
           704/201
                          .. For storage or transmission
           704/205
                          ... Fr equency
                          .... Specialized information
           704/206
           704/207
                          .....Pitch
           704/208
                          ..... Voi ced or unvoi ced
           (1 OR, 4 XR)
Class 704 DATA (1)
  5 704/270
                          DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
                         . SPEECH SI GNAL PROCESSI NG
           704/200
           704/270
                          . . Application
  4 704/E13.004 (0 OR, 4 XR)
           Class 704
                          DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
           704/E13.001 . SPEECH SYNTHESIS; TEXT TO SPEECH SYSTEMS (EPO)
           704/ E13. 002
                          .. Methods for producing synthetic speech; speech
synthesizers (EPO) 704/E13.004 ...Sound editing, manipulating voice of the synthesizer
(EPO)
                    (2 OR, 2 XR)
  4 704/206
           Class 704
                          DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION 704/200 . SPEECH SIGNAL PROCESSING
           704/201
                          .. For storage or transmission
           704/205
                          . . . Fr equency
                          .... Specialized information
           704/206
  3 704/E21.001 (0 OR 3 XR)
Class 704 DATA PROCESSING SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
           704/E21.001 . MODIFICATION OF AT LEAST ONE CHARACTERISTIC OF SPEECH WAVES
(EPO)
                     (2 CR, 1 XR)
DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
  3 704/232
           Class 704
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SIGNAL PROCESSING
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704/231 ... Recognition 704/232 ... Neural network

3 704/ E19. 01 (0 OR, 3 XR) 4 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, Class 704

LANGLIAGE THANSLATION, AND AUDIO COMPRESSION OF DECOMPRESSION OF DECOMPRESSION OF DECOMPRESSION OF DECOMPRESSION OF DECOMPRESSION OF DECOMPRESSION OF SPEECH OR AUDIO OF SIGNAL ANALYSIS - SYNTHESIS TECHNI CLIES FOR REDUNDANCY REDUCTION, E. G., IN VOCCOURS, ETC.; CODING OR DECOMING OF SPEECH OR AUDIO OF SPEECH OR AUDIO OF COMPRESSION OR EXPANSION OF SPEECH OR AUDIO OF COMPRESSION OF EXPANSION OF SPEECH OR AUDIO OF COMPRESSION OR EXPANSION OF SPEECH OR AUDIO OF COMPRESSION OF SPEECH OR AUDIO OF COMPRESSION OF SPEECH OR AUDIO OF COMPRESSION OR SPEE

MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
704/E19.01 . Using spectral analysis, e.g., transform vocoders, subband vocoders, perceptual audio coders, psychoacoustically based lossy encoding, etc., e.g., MPEG audio, Dolby AC-3, etc. (EPO)

3 704/221

Class 704 DATA DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, LANGUAGE TRANSLATION. AND AUDIO COMPRESSION DECOMPRESSION

SPEECH SIGNAL PROCESSING 704/200 704/201 .. For storage or transmission 704/221 ... Pattern matching vocoders

Class 704 (0 OR, 3 XR) 3 704/271

DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS. LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION SPEECH SIGNAL PROCESSING

704/270 ...Application ...Handicap aid 704/271

3 704/203 (1 OR, 2 XF) G ass 704 DATA PROCESSI NG, SPEECH SI GNAL PROCESSI NG, LI NOUI STI CS, LANGUAGE TRANSLATI ON, AND AUDI O COMPRESSI ON DECOMPRESSI ON

. SPEECH SI GNAL PROCESSI NG 704/200 704/201 .. For storage or transmission 704/203 ... Transformation

246 (1 OR, 2 XR) Class 704 DATA DE 3 704/246 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION 704/200 . SPEECH SI GNAL PROCESSI NG .. Recognition 704/231

704/246 ... Voi ce recognition 3 704/272

2/2 (3 OR, 0 XR) Class 704 DATA DO DATA PROCESSING: SPEECH SLONAL PROCESSING, LINGUISTICS. LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION

SPEECH SIGNAL PROCESSING 704/200 704/270 .. Application ... Novelty item 704/272

3 704/E17.002 (0 OR, 3 XF)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING. LINGUISTICS.

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION 704/ E17. 001 . SPEAKER I DENTI FI CATI ON OR VERI FI CATI ON (EPO

704/ E17, 002 .. Recognition of special voice characteristics, e.g., for use in a lie detector; recognition of animal voices, etc. (EPO)

(1 OR, 2 XR) 4 DATA PROCESSING: SPEECH SLONAL PROCESSING, LINGUISTICS, Class 704 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION

704/200 . SPEECH SI GNAL PROCESSI NG 704/201 .. For storage or transmission 704/220 ... Anal ysis by synthesis

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3 704/E19.024 (0 OR, 3 XR)
            Class 704
                         DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
704/E19.001 . SPECH OR AUDIO SIGNAL ANALYSIS SYNTHESIS TECHNIQUES FOR REDUNDANCY REDUCTION, E. G., IN VOCCOUERS, ETC.; CODING OR DECODING OF SPEECH OR AUDIO SIGNALS, COMPRESSION OF REPROSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)
            704/E19.023 ... Using predictive techniques; codecs based on source-filter
modelization (EPO)
            704/ E19. 024
                              ... Determination or coding of the spectral characteristics.
e.g., of the short-term prediction coefficients, etc. (EPO)
            (1 OR, 2 XR)
Class 704 PAT XR)
  3 704/205
                             DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION. AND AUDIO COMPRESSION DECOMPRESSION
            704/200
                             . SPEECH SI GNAL PROCESSI NG
                              .. For storage or transmission
            704/201
                             ... Fr equency
            704/205
  2 704/269
                       (1 OR, 1 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, LANGUAGE TRANSLATICN, AND AUDIO COMPRESSION DECOMPRESSION 2014 SPEECH SIGNAL PROCESSING
                             . . Synt hesi s
            704/258
            704/269
                             ... Transformation
            90.01 (0 OR, 2 XR)
Class 379 TELEPHONIC COMMUNICATIONS
  2 379/390.01
            379/387.01
                             . SUBSTATION OR TERMINAL CIRCUITRY
            379/388.01
379/390.01
                            .. For I oudspeaking terminal
                             ... Amplification or attenuation level control
                       (0 OR, 2 XR)
ELECTRICAL AUDIOSIGNAL PROCESSING SYSTEMS AND DEVICES
            Class 381
            381/56
                             . MONI TORI NG OF SOUND
                       (0 OR, 2 XR)
ELECTRICAL AUDIO SIGNAL PROCESSING SYSTEMS AND DEVICES
  2 381/66
            Class 381
            381/66
                              . DEREVERBERATORS
                       (1 OR, 1 XR)
  2 704/268
            Class 704
                             DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
                             . SPEECH SI GNAL PROCESSI NG
            704/200
            704/258
                             . . Synt hesi s
                             ... Frequency el ement
            704/268
  2 704/264
            164 (1 CR, 1 XR)
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION
                           AND AUDI O COMPRESSI ON DECOMPRESSI ON
                             . SPEECH SI GNAL PROCESSI NG
            704/200
                             . . Synt hesi s
            704/258
            704/264
                             ... Excitation
2 704/251 (1 OR, 1 XF)
Class 704 DATA PROCESSING SPEECH SLGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
704/201 SPEECH SLGNAL PROCESSING
            704/231
                             .. Recognition
                              ... Word recognition
            704/251
  2 704/254
                       (0 OR, 2 XR)
            Class 704
                             DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
                                                 Page 3
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10594396 CLSTITLES, txt
LANGUAGE TRANSLATION. AND AUDIO COMPRESSION DECOMPRESSION
                          . SPEECH SI GNAL PROCESSI NG
           704/200
           704/231
                           .. Recognition
           704/251
                           ... Word recognition
           704/254
                           . . . . Subportions
           Class 704 CAT XR)
  2 704/261
                           DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION. AND AUDIO COMPRESSION DECOMPRESSION
           704/200
                           . SPEECH SI GNAL PROCESSI NG
                           ... Synt hesi s
           704/258
           704/261
           OUU (0 OR, 2 XR)
  2 704/500
                           DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
                           . AUDI O SI GNAL BANDWIDTH COMPRESSION OR EXPANSION
           704/500
           Class 704 DATA
  2 704/ E19. 007
                           DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
704/E19.001 SPEECH OR AUDI OS IQNAL ANALYSI S SYNTHESIS TECHNI QUES FOR REDUNDANCY REDUCTION, E. G., IN VOCODERS, ETC.; CODING OR DECODING OF SPEECH OR AUDI O SIGNALS, COMPRESSION OR EXPANSION OF SPEECH OR AUDI O SIGNALS, E. G., SOURCE-FILTER MODELS, PSYCHOACUSTI C ANALYSIS, ETC. (EPO)
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
           704/ E19, 007
                           .. Speech coding using phonetic or linguistical decoding of
the source; reconstruction using text-to-speech synthesis (EPO)
                     (1 OR, 1 XR)
  2 704/235
Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION
           704/200
                           . SPEECH SI GNAL PROCESSI NG
                           .. Recognition
           704/231
           704/235
                           ... Speech to image
  2 704/E11.006 (0 OR, 2 XR)
Class 704 DATA PF
                           DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS,
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION/ DECOMPRESSION
                           . M SCELLANEOUS ANALYSIS OR DETECTION OF SPEECH
           704/ E11. 001
CHARACTERI STI CS (EPO)
704/E11.006
                           .. Pitch determination of speech signals (EPO)
                      (1 OR, 1 XR)
  2 704/265
           Class 704
                           DATA PROCESSING: SPEECH SLONAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION.
                         AND AUDI O COMPRESSI ON DECOMPRESSI ON
           704/200
                           . SPEECH SI GNAL PROCESSI NG
           704/258
                           . . Synt hesi s
           704/265
                           ... Interpolation
           Class 704
  2 704/245
                           DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION,
                         AND AUDI O COMPRESSI ON DECOMPRESSI ON
           704/200
                           . SPEECH SI GNAL PROCESSI NG
           704/231
                           ..Recognition
           704/243
                           ... Creating patterns for matching
           704/245
                           .... a ust er i na
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..Pecognition ...Voice recognition Page 4

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SIGNAL PROCESSING

DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.

Class 704 DATA XR)

2 704/250

704/231

704/246

## 10594396 CLSTITLES, txt

704/250 .... Special ized model s 2 704/276 (2 OR, 0 XR)

Class 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS. LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION 704/200 . SPEECH SIGNAL PROCESSING

704/270 .. Application ... Pattern display 704/276

2 704/244

LANGUAGE TRANSLATION. AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SI GNAL PROCESSI NG 704/200

704/231 .. Recognition

704/243 ... Or eating patterns for matching 704/244

.... Updat e pat t er ns

2 704/201

(0 OR, 2 XP) DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, Class 704 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION

704/200 . SPEECH SIGNAL PROCESSING 704/201 .. For storage or transmission

2 704/E19.042 (0 OR, 2 XR) C1 ass 704 DATA PROCESSING: SPEECH SLONAL PROCESSING, LINGUISTICS,

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION TOUR STEECH ON AUDIO SIGNAL ANALYSIS SYNTHESIS TECHNIQUES FOR REDUNDANCY REDUCTION, E. G., IN VOCCOURS, ETC.: CODING OR DECODING OF SPEECH OR AUDIO SIGNALS; COMPRESSION OR EXPANSION OF SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO) TOUR SIGNALS; COMPRESSION OR SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO) TOUR SIGNALS; COMPRESSION OR SPEECH OR AUDIO SIGNALS, E.G., SOURCE-FILTER MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)

model i zati on (EPO) 704/E19.039

... Details of speech and audio coders (EPO) 704/ E19, 04 .... Vocoder architecture (EPO)

704/ E19. 041 ..... Vocoders using multiple modes (EPO) ..... Using sound class specific coding, hybrid encoders. 704/ E19. 042

object-based coding (EPO)

(1 OR, 1 XP) DATA PROCESSING: SPEECH SIGNAL PROCESSING. LINGUISTICS. 2 704/223 Class 704

LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SIGNAL PROCESSING .. For storage or transmission 704/201 ... Pattern matching vocoders 704/221 704/223 .... Excitation patterns

2 704/E19.035 (0 OR, 2 XR) Class 704 DATA PR CLASS 704 DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS, LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION

704/E19.001 . SPEECH OR AUDI O SI GNAL ANALYSIS S SYNTHESIS TECHNI QUES FOR REDUNDANCY REDUCTI ON, E. G., IN VOCCOUERS, ETC.; CODI NG OR DECODI NG OF SPEECH OR AUDI O SI GNALS, COMPRESSI ON OF EXPANSION OF SPEECH OR AUDI O SI GNALS, E. G., SOURCE-FILTER MODELS, PSYCHOACOUSTIC ANALYSIS, ETC. (EPO)

704/E19.023 ... Using predictive techniques; codecs based on source-filter

model i zat i on (EPO) 704/E19.026 .. Determination or coding of the excitation function: determination or coding of the long-term prediction characteristics (EPO 704/E19.035 .... Determination or coding of a code excitation; code

excited linear prediction (CELP) vocoders (EPO)

2 704/228 LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION Page 5

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10594396 CLSTITLES, txt
                             . SPEECH SI GNAL PROCESSI NG
            704/200
            704/201
                             .. For storage or transmission
                             ...Noise
            704/226
            704/228
                             .... Post - t r ansmi ssi on
            0/U (2 OR, 0 XR)
Class 455 TEIE
  2 455/570
                             TELECOMM INLICATIONS
            455/73
                             . TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,
TRANSCEI VERI
            455/550.1
                             .. Radi ot el ephone equi pment det ai l
            455/569.1
                             ... Hands-free or Loudspeaking arrangement
            455/570
                             .... Noi se suppressi on or echo cancel lati on
            Class 704 (2 OR, 0 XR)
  2 704/213
                             DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION . SPEECH SIGNAL PROCESSING
            704/201
                             .. For storage or transmission
            704/211
                             . . . Ti me
            704/213
                             ....Zero crossina
            (0 OR, 2 XR)
  2 704/243
                            DATA PROCESSING: SPEECH SIGNAL PROCESSING, LINGUISTICS.
LANGUAGE TRANSLATION, AND AUDIO COMPRESSION DECOMPRESSION SPEECH SIGNAL PROCESSING
                             .. Recognition
            704/231
            704/243
                             ... Or eating patterns for matching
2 704/E15.008 (0 OR, 2 XF)   
Q ass 704   DATA PROCESSI NG. SPEECH SI GNAL PROCESSI NG, LI NGUI STI CS, LANGUAGE TRANSLATI ON, AND AUDI O COMPRESSI ON DECOMPRESSI ON
            704/E15.001 .SPEECH RECOONTION (EPC)
704/E15.007 ..Creation of reference templates; training of speech
r ecognical
et c. (EPO)
704/ E15. 008
recognition systems, e.g., adaption to the characteristics of the speaker's voice.
                            ... Training (EPO)
2 704/E15.017 (0 OR, 2 XR)
Q ass 704 DATA PROCESSI NG. SPEECH SI GNAL PROCESSI NG. LI NGUI STI CS, LANGUAGE TRANSLATI CN, AND AUDI O COMPRESSI ON DECOMPRESSI ON
            704/E15.001 . SPEECH RECOGNITION (EPO)
            704/ E15, 014
                             .. Speech classification or search (EPO)
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704/E15.017 ... Using artificial neural networks (EPO)